

## REMARKS

### 1. Rejection of Claims 29-44 and 46-51 under 35 U.S.C. 103(a)

Claims 29-44 and 46-51 were rejected under 35 U.S.C. 103(a) as unpatentable over Kigawa et al. in view of Nolan et al. for the reasons of record.

Applicant respectfully traverses the rejection for the reasons of record set forth in the Amendment and Response filed February 3, 2005. However, in order to expedite allowance of claims, Applicant has amended the claims as set forth herein above.

In particular, the Applicant has Amended Claim 29 to clarify that the method is directed to the detection of single base pair changes relative to a wild-type sequence in the form of a SNP or single base pair insertion or deletion. Applicant has also amended Claim 29 to clarify that the method of the present invention does not require removal of unreacted probe prior to detection.

Applicant has further amended Claim 29 to clarify that MutS binds to the three stranded or four stranded filaments formed by RecA. Applicant respectfully contends that prior to the present invention there was no teaching or suggestion in the art that either three stranded or four stranded structures formed by RecA could serve as a suitable binding substrate for MutS. Accordingly, prior art studies showing that immobilized MutS could detect mismatches in duplex DNA represent at most an “obvious to try” background relative to the present invention.

In view of the foregoing, Applicant respectfully requests withdrawal of the Examiner’s rejection of Claims 29-44 and 46-51 under 35 U.S.C. 103(a).

### 2. Rejection of Claim 45 under 35 U.S.C. 103(a)

Claim 45 was rejected under 35 U.S.C. 103(a) as unpatentable over Kigawa et al. in view of Nolan et al. and further in view of Olson et al., for the reasons of record.

Applicant has canceled Claim 45, therefore rendering the rejection moot.

In view of the foregoing amendments, Applicant respectfully contends that all claims are in a condition for allowance. In the event the Examiner has any questions regarding the Applicant's position, a telephone call to the undersigned representative is requested.

Respectfully Submitted,

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Date

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